

MEMORANDUM

DATE:	August 8 th , 2016
FROM:	Eric Lancaster
SUBJECT:	Weekly Progress Report @ Gold King
TO:	Kerry Guy

Project: Gold King Interim Water Treatment Plant (IWTP)

Reporting Period: Aug 1 – Aug 8

Location: Gladstone, Colorado

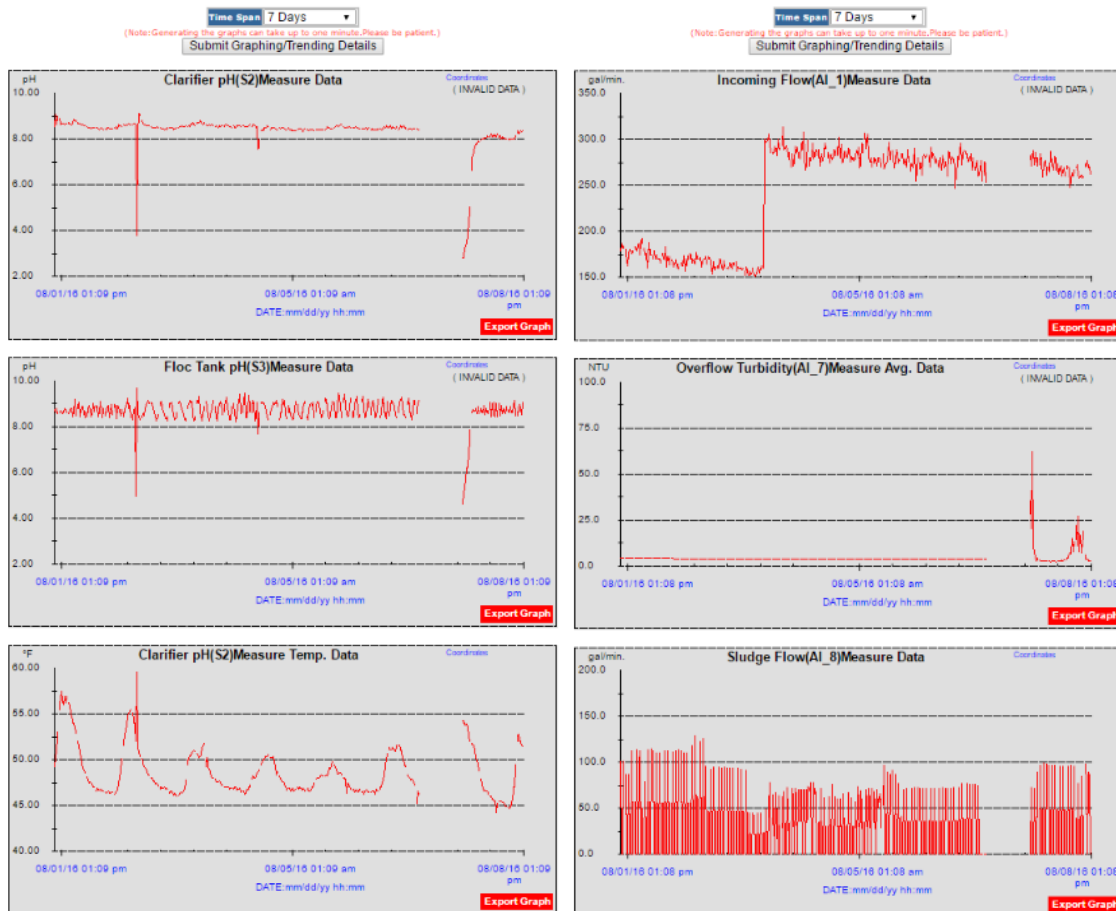
Report No.: 31

Prepared for: Emergency Response Unit – US EPA Region 8

I. General Operations Summary:

IWTS Function/Upsets

- The following graphs provide trending information during the previous 7 days. The dataloggers collect control information from the Lime Circuit (left) and Flow Circuit (right) Programmable Logic Controllers (PLCs) at the Gold King IWTP. Over the reporting period (8/1/16 – 8/8/2016 inclusive) Alexco treated 6.21 million gallons at an average flow rate of 616 gpm.



- Please note: Several days each week, the Alexco operators check the pH at both the flocc tank and clarifier discharge. During this time, the probe is placed in vinegar (acid), and three pH buffers – 4, 7, and 10. While the probe is in the acid/buffer, the datalogger may capture one of those points for tracking purposes, which explains the occasional pH spikes seen on the graph. In addition, instantaneous spikes of the Overflow Turbidity Meter are associated with routine cleaning, which can cause the meter to spike temporarily up to 100 NTUs.
- A sample at the IWTP inlet on 8/3 measured 3.48.
- A sample at the IWTP inlet on 8/4 measured 3.44.
- On 8/3 an operator cleaned the insertion probes of the incoming flow meters that are installed on both clarifiers. These probes hadn't been cleaned for roughly 3 weeks. This cleaning caused the recorded flow to increase roughly 100 gpm for each meter, which explains the drastic increase in flow from previous recordings. Cleaning the incoming flow meters and the discharge flow meter is now part of the weekly operator check list.
- With the increased flow rates, prior datalogs were analyzed. It is now estimated that the average flow from 7/18 – 7/25 was 469 gpm (versus 404 gpm) and 7/25 – 8/1 was 509 gpm (versus 408 gpm).

Communication System Function Status

- No issues – reliable operations during the reporting period.

Facility or System Related Work, including Repairs & Completions

- N/A

II. Identified Problems, Causes, and Solutions (Planned or Implemented)

- On several occasions the automated lime slurry refill system has failed to shut-off, causing the lime slurry tank to flow over into the Alpha Cell area. Alexco is working to develop a mechanical shut-off system that will mitigate this issue in the future.
- There is concern that the A and B bags are full, and Alexco is occasionally utilizing bag C. The original plan was to use bags in the A and B cells throughout August and only use the bag in the C cell if necessary. A representative from Alexco's upper management will be on-site on 8/11 to better assess this situation.

III. System Inspections – Specific elements inspected and finding

- N/A

IV. Site Status

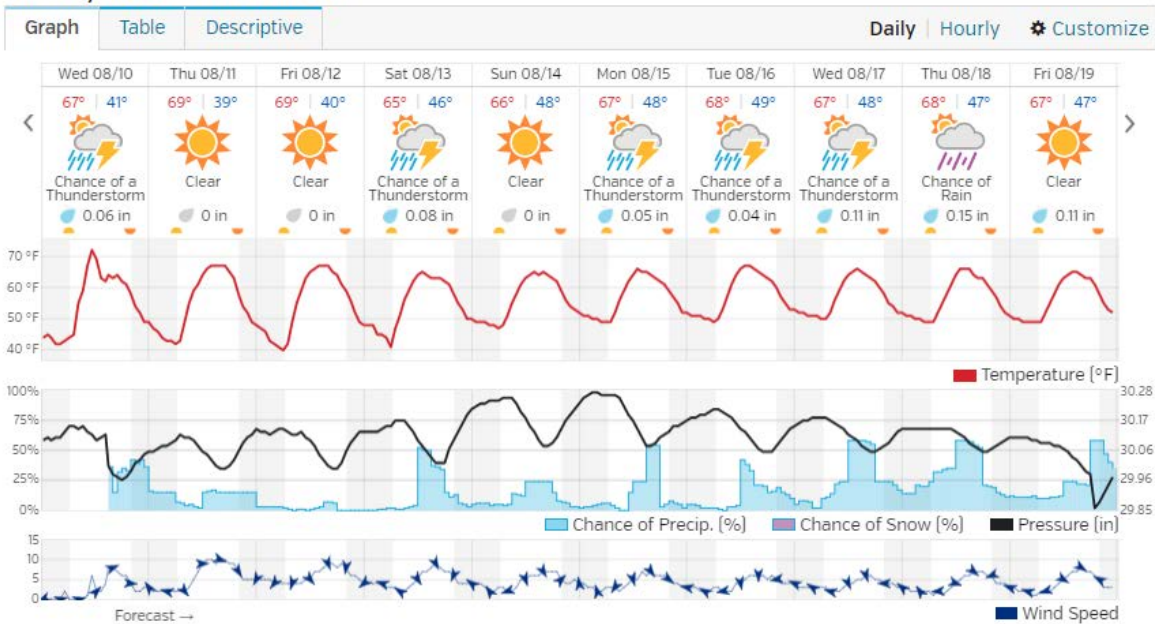
Personnel and equipment onsite

- Alexco currently employs one full-time employee (FTE) who lives in Silverton and oversees all operations at the Gold King IWTP. He is supported by remote operators in Denver, and local sub-contractors as needed.

Weather conditions

- Weather Underground Report for Silverton, CO (8/10/2016 – 8/19/2016)

10-Day Weather Forecast



Pictures from Site



Photo 1: Inspection of the sludge bags



Photo 2: Cell A bags